

Vitamin supplements do not cut risk of gastrointestinal cancer

Susan Mayor *London*

Supplements of antioxidant vitamins do not reduce the risk of gastrointestinal cancers, and some may be associated with an increased risk of death, concluded a systematic review published last week.

The Cochrane Hepato-Biliary Group reviewed all randomised trials that compared antioxidant supplements with placebo for the prevention of gastrointestinal cancers. The group assessed the incidence of gastrointestinal cancers, overall mortality, and adverse effects in 14 randomised trials, which comprised a total of 170 525 participants (*Lancet* 2004;364:1219-28).

Vitamins A, C, and E;

β carotene; and selenium (alone or in combination) had no protective effects compared with placebo on the incidence of oesophageal, gastric, colorectal, pancreatic, and liver cancers. Antioxidant supplements were associated with increased mortality in some trials.

Results from seven studies showed a small but significant increase in mortality with antioxidant supplements (relative risk 1.06, 95% confidence interval 1.02 to 1.10). And a combination of β carotene and vitamin A was associated with a 30% increased risk of death while combined β carotene and vitamin E was associated with a 10% increased risk.

Selenium had a significant

beneficial effect on the incidence of gastrointestinal cancer in four trials, although three of these were considered to have unclear or inadequate methodology. The authors suggest that selenium should be studied in randomised trials.

Goran Bjelakovic, from the Cochrane Hepato-Biliary Group, and the University of Niss, in Serbia and Montenegro, said that although they had not found any evidence of a protective effect, only certain antioxidant supplements had been studied. "The results should not be translated to the potential effects of vegetables and fruit, which are rich in antioxidants and other substances," he cautioned.

In an accompanying editorial, David Forman, professor of cancer epidemiology at the University of Leeds, and Douglas Altman, professor of statistics in medicine in the Cancer

Research UK Medical Statistics Group, Institute of Health Sciences, Oxford, wrote, "The simple conclusion from the review is that, apart perhaps for vitamin C and selenium, regular use of antioxidant supplements does not prevent gastrointestinal cancer." They cautioned that findings of increased mortality with some supplements were only preliminary and warranted further research (*Lancet* 2004;364:1193-4).

Patrick Holford, founder of the Institute for Optimum Nutrition, an independent research centre based in London said, "This is one of the most biased and unsubstantiated reports on antioxidants I've ever read." Some positive studies had been excluded, including a trial of colorectal adenomas, which showed a 50% reduction in recurrence in people taking β carotene or vitamins C and E, he said. □

Can country music drive you to suicide?

Jeanne Lenzer *New York*

The Ig Nobel award for medicine—one of the prizes given annually to scientists who have produced unusual research—was given this year to a team of researchers who had found that cities in which radio stations played a higher than average amount of country music had higher than average suicide rates.

The award went to Steven Stack of Wayne State University, Michigan, and James Gundlach of Auburn University, Alabama, for their report, *The Effect of Country Music on Suicide*. Dr Stack protested to the *BMJ* that it was unfair of *Newsweek* to call him and his colleague "academic coneheads."

"We had hard data showing that cities with higher than average country music radio market share had higher white suicide rates," he said. African-American suicide rates, he explained, were not affected by the country music market (*Social Forces* 1992;71:211-8).

Odd science, from the peculiar to the bizarre, was centre stage at the ceremony, the 14th in the history of the prize, which was held at Harvard University.



Don't let it bring you down...

The awards are given by the *Annals of Improbable Research* for work that "celebrates the unusual" and "first makes you laugh, and then makes you think."

Scientists from Japan, Sweden, Denmark, Canada, and the United States attended the ceremony at which genuine Nobel laureates draped empty aluminium pie tins on strings around the award winners' necks.

A biology award went to Robert Batty of the Scottish Association for Marine Science and his colleagues who discovered that herring allegedly communicate by breaking wind. The researchers found that "Pacific herring produce distinctive bursts of pulses, termed Fast Repetitive Tick (FRT) sounds" (*Biology Letters*

2003;271:S95-7). The audience expressed its appreciation for the rare recording of the farting fish by listening raptly as the sounds were played back to them.

Jillian Clarke, of the Chicago High School for Agricultural Sciences, won the public health award for her tests of the scientific validity of the "five second rule," which says that if food dropped on the floor is left for only five seconds, it is safe to eat. Ms Clarke, 17 years old and the youngest Ig Nobel recipient ever, dropped food on all sorts of surfaces at the University of Illinois and then tested the food for bacteria. Because she did not find a countable number of bacteria from food left on the floor, she inoculated floor tiles with

Escherichia coli. Food dropped on the tiles and left for five seconds picked up the bacteria—disproving the five second rule while proving that the floors of the University of Illinois are pretty clean.

The Literature Award went to the American Nudist Research Library of Kissimmee, Florida, "for preserving nudist history so that everyone can see it." Pamela Chestek, accepting the award on behalf of her mother, told the audience that the library's board members wanted to attend but found they "had nothing to wear."

Other recipients included the Vatican which received this year's economics award "for outsourcing prayers to India." The *New York Times* recently reported that with Roman Catholic clergy in short supply in the United States, "Indian priests are picking up some of their work, saying mass for special intentions." The Coca-Cola Company of Great Britain won the chemistry award for invention of its Dasani brand of "pure" bottled water—which turned out to be tap water.

The clear winner of the night, however, was the recipient of this year's peace prize, Daisuke Inoue of Hyogo, Japan. Mr Inoue, who invented the karaoke machine, received this year's peace award for "providing an entirely new way for people to learn to tolerate each other." □